previously reported aHSCT patients take a median of 17 (range 3-49) medications daily at Mayo Clinic. This study aimed to determine if medication burden correlates with quality of life (QoL) at 1 year following HSCT.

Methods: As part of an ongoing, IRB approved QoL study we examined the cross-sectional relationship between medication burden and QoL among all adult aHSCT patients with adequate documentation and follow-up between 7/1/09 and 9/30/10. Medication burden was assessed by number of scheduled medications, maximum possible doses and maximum possible pills per day reconciled by a pharmacist pre-HSCT and 1 year post-HSCT. QoL was assessed by the Functional Assessment of Cancer Therapy (FACT)-General (version 4) during pre-HSCT evaluation and FACT-BMT 1 year post-HSCT.

Results: During the study period, 57 patients received an aHSCT and enrolled in the QoL study; 43 patients were included. Patients were excluded for death before 1 year (n = 13), incomplete medication record (n = 1), missing post-HSCT QoL data (n = 2). Median patient age was 55 years (range of 24-71); 50% of patients were male and most patients had an ECOG performance score of 0 or 1 (n = 1 ECOG of 2). Pre-HSCT total scheduled pills per day negatively correlated with social well being. Pre-HSCT, a higher number of maximum possible pills per day (scheduled and prn) was associated with worse pre-transplant QoL across domains of physical, social, functional, and overall well-being. The associations with physical, social, and total well-being remained significant after adjustment for age, gender, and ECOG performance score. A higher pre-HSCT maximum possible pills per day correlates with worse physical and overall well being 1-year post-HSCT. Post-transplant a higher number of maximum possible pills per day negatively correlated with physical, functional, and overall well-being 1 year post-transplant, even after covariate adjustment.

Conclusion: These data offer preliminary evidence that maximum daily pill count (scheduled and prn) might be a significant predictor of QoL among HSCT recipients. Better understanding of which aspects of medication burden (e.g., pill count, medication type) affect domains of QoL may help identify possible medication management strategies to improve QoL.

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EFFECT OF CYTOXAN DOSING ON HEMATOPOIETIC STEM CELL (HSC) MOBILIZATION EFFICACY, TOXICITY, AND COST IN SUCCESSIVE COHORTS OF NON-HODGKIN'S LYMPHOMA (NHL) PATIENTS

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Background: Cyclophosphamide (Cy) has been shown to be an effective regimen for HSC mobilization in NHL patients undergoing autologous stem cell transplantation (ASCT). However, the optimal dose to be used, which maximizes HSC collection yields while minimizing febrile neutropenia and other toxicities, remains controversial. Three successive cohorts of NHL patients who received G-CSF and Cy at doses of either 4g/m^2 (Cy4), 2g/m^2 (Cy2) or 3g/m^2 (Cy3) were compared.

Methods: 31 pts undergoing Cy3 mobilization between October 2009 and August 2011 were retrospectively analyzed and compared to our historical Cy2 (n = 28) and Cy4 (n = 28) data. Minimal and optimal yield was defined as collection of ≥2 x 10^6 and ≥5 x 10^6 CD34+ cells/kg, respectively. Apheresis was initiated utilizing WBC and CD34+ cell count to guide start of collection and preemptive plerixafor use, whereas in historical Cy4 and Cy2 cohorts, plerixafor was only used following mobilization failure.

Results: Minimal cell dose required for ASCT was achieved in the majority of patients in all groups (89%, 100% and 100% of Cy2, 3, and 4 pts, respectively). However, the collection efficiency clearly favored Cy3 and Cy4, with the proportion of patients collecting ≥2 x 10^6 CD34+ cells/kg in 2 days being 87% and 82%, respectively vs. 39% for Cy2 ($p<0.001$). In contrast, toxicity, as measured by % febrile neutropenia and median hospitalization days, favored Cy2 (0%, 0d) compared with Cy4 (32%, 4d, p = 0.002), with Cy3 falling intermediate between these groups (16%, 3d). Requirement for Plerixafor was significantly higher for both Cy2 (32%) and Cy3 (42%), compared with Cy4 (4%, p = 0.003). Relative cost clearly favored Cy4, when accounting for the combined costs of Cy, G-CSF, plerixafor, hospitalization, and apheresis, with Cy3 and Cy2 costing approximately 37% and 47% more, respectively, per patient mobilization.

Conclusions: Although Cy2, 3, and 4 are all effective mobilizing regimens, collection efficiency, toxicity, and cost vary greatly. Both Cy3 and Cy4 improve collection efficiency, at the expense of increased hospitalization, particularly with Cy4. Cy4 appears to maximize collection efficiency while minimizing plerixafor use and overall cost. Further improvements in supportive care strategies to reduce the incidence of febrile neutropenia and associated hospitalization are clearly needed.

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ONCE DAILY DOSE (ODD) LORAZEPAM (Lo) FOR SEIZURE PROPHYLAXIS IN CONJUNCTION WITH ONCE DAILY DOSE BUSULFAN (BU) FOR PEDIATRIC PATIENTS UNDERGOING REDUCED INTENSITY CONDITIONING (RIC) FOR ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION (HSCT)

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BU is an alkylating agent used as part of conditioning for HSCT. It is known to cause seizures in the 3rd and 4th day of

Table.

					Pairwise Comparison (significant if p-value<0.017 based on Bonferroni adjustment)		
	Cy2 (n = 28)	Cy3 (n = 31)	Cy4 (n = 28)	P-value	Cy2 vs Cy3	Cy2 vs Cy4	Cy3 vs Cy4
Collect ≥2x10^6 in ≤2 days	39%	87%	82%	**<0.001**	**<0.001**	**0.001**	0.597
Collect≥5x10^6 in ≤2 days	14%	42%	46%	**0.022**	**0.019**	**0.009**	0.729
Collect≥5x10^6 in all days	18%	45%	64%	**0.002**	**0.025**	**<0.001**	0.141
Collect≥2x10^6 in all days	89%	100%	100%	n.s	N/A	N/A	N/A
Median # of collections	3	2	2	**<0.001**	**<0.001**	**0.011**	0.830
% Patients hospitalized for FN	0%	16%	32%	**0.002**	**0.062**	**0.002**	0.127
Hospitalization Days (median)	0	3	4	**0.004**	**0.033**	**0.002**	0.113
Days of G-CSF (median)	11.5	12.5	10.5	n.s	N/A	N/A	N/A
% Pts receiving plerixafor	32%	42%	4%	**0.003**	0.437	**0.005**	**<0.001**
Relative Mobilization Cost (normalized to Cy4)	1.47	1.37	1.00				